THE DEPARTMENT OF NATURAL RESOURCES

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THE GEOLOGY OF OAKVALE FIELD

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Introduction

Oakvale Field was discovered by Florida Gas Exploration Company in early 1977. By the end of 1980, over 31 billion cubic feet of gas and 253 thousand barrels of oil had been produced (see Table I). Eight wells produced from the Hosston Formation (Lower Cretaceous) "Harper" sand, and two from the Sligo Formation (Lower Cretaceous). Other sands within the Hosston appear productive from well log analysis and drill stem test information, but have not as yet been produced.

The impressive production figures and the field's location near the center of the active Hosston Trend make Oakvale Field a prime candidate for use as an analogue in further exploration. Towards that end, this report will attempt to give a general overview of the geology pertinent to the producing intervals in the field.

Location

The field is located in Township 5 & 6 North, Range 18 & 19 West, of Jefferson Davis County, Mississippi (see Fig. 1). It lies within the central portion of the Mississippi Interior Salt Basin. The field is offset to the north and northeast, respectively, by Vintage and Holiday Creek fields, and to the southwest by Greens Creek Field.

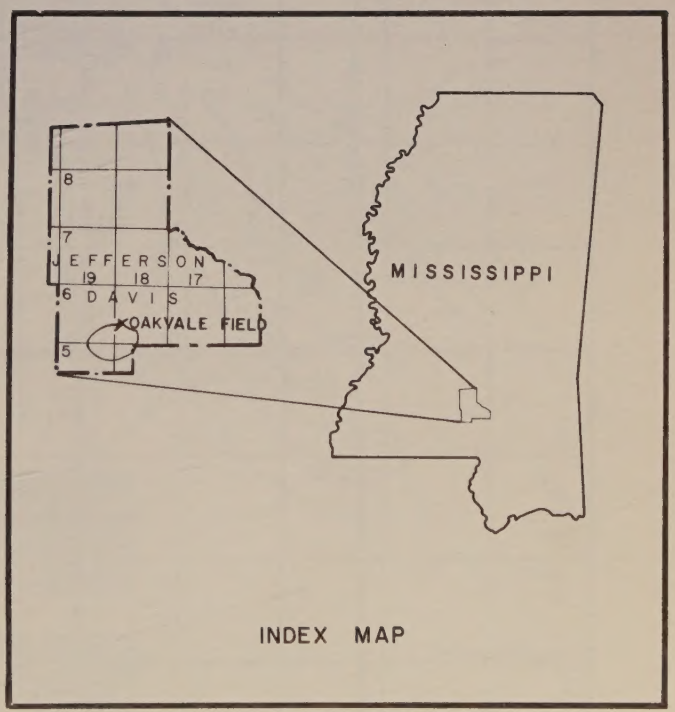
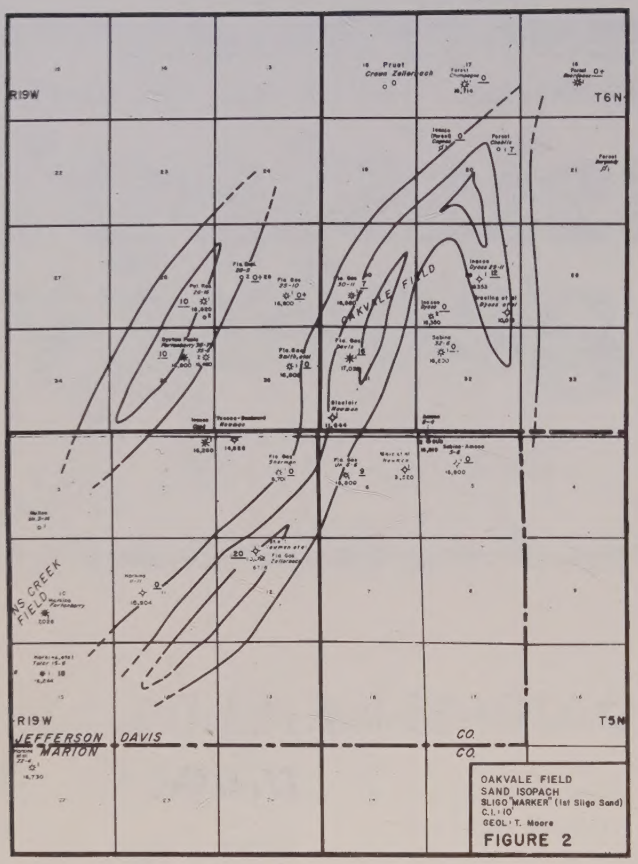
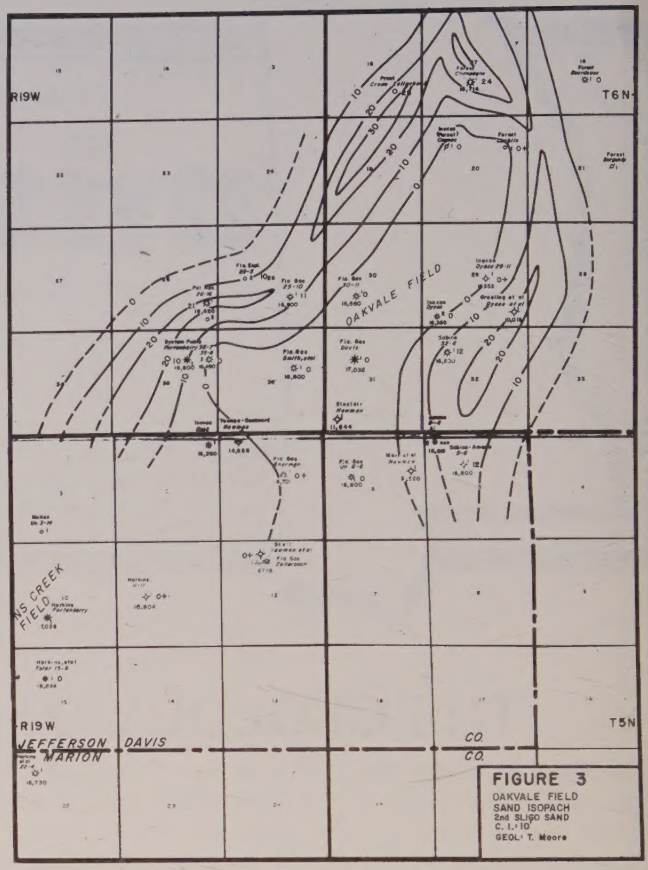
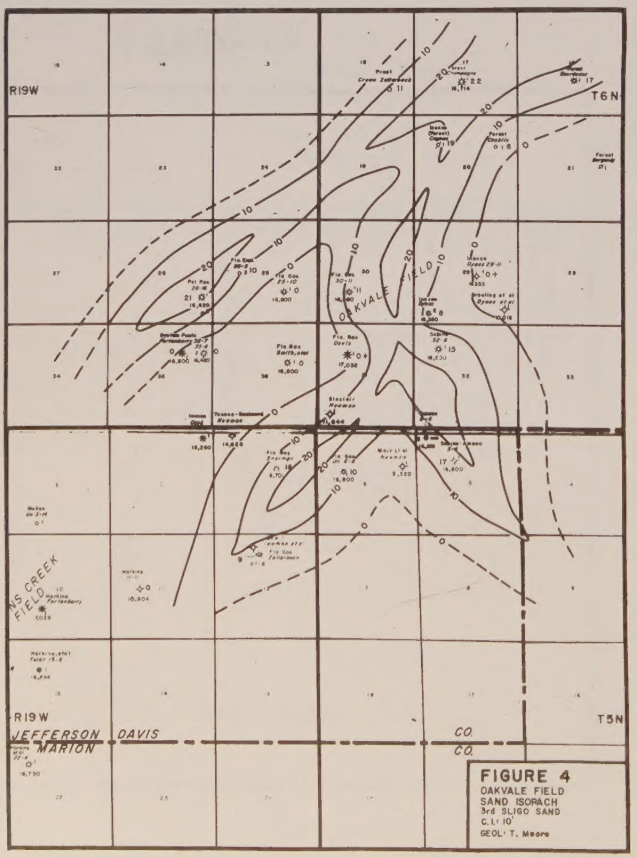
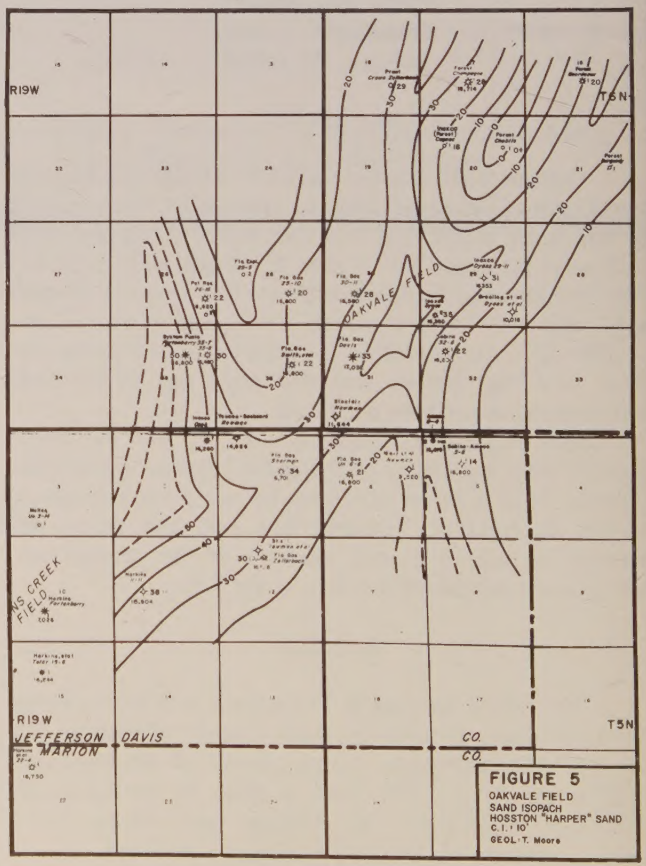


Figure 1


R19W
T6N
T5N
OAKVALE FIELD
JEFFERSON DAVIS CO.
MARION CO.
OAKVALE FIELD
SAND ISOPACH
SLIGO "MARKER" (1st Sligo Sand)
C.I. = 10'
GEOL: T. Moore
FIGURE 2


R19W
T6N
T5N
OAKVALE FIELD
JEFFERSON DAVIS CO.
MARION CO.
FIGURE 3
OAKVALE FIELD
SAND ISOPACH
2nd SLIGO SAND
C.I. = 10'
GEOL: T. Moore


R19W
T6N
T5N
OAKVALE FIELD
JEFFERSON DAVIS CO.
MARION CO.
FIGURE 4
OAKVALE FIELD
SAND ISORACH
3rd SLIGO SAND
C.I. = 10'
GEOL: T. Moore


R19W
T6N
T5N
OAKVALE FIELD
JEFFERSON DAVIS CO.
MARION CO.
FIGURE 5
OAKVALE FIELD
SAND ISOPACH
HOSSTON "HARPER" SAND
C.I. = 10'
GEOL: T. Moore

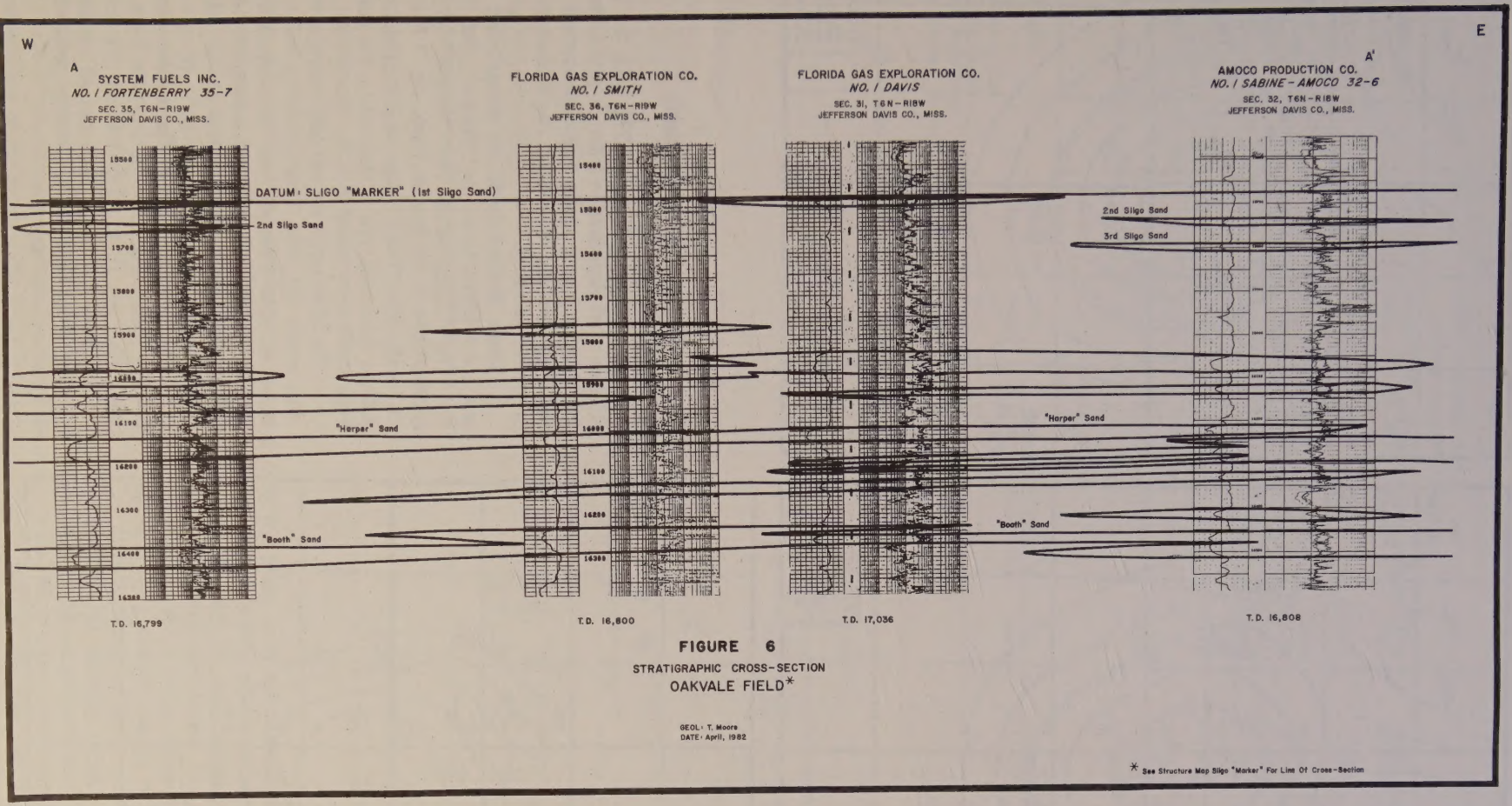


FIGURE 6

STRATIGRAPHIC CROSS-SECTION
OAKVALE FIELD*

GEOL: T. Moore
DATE: April, 1982

* See Structure Map Sligo "Marker" For Line Of Cross-Section

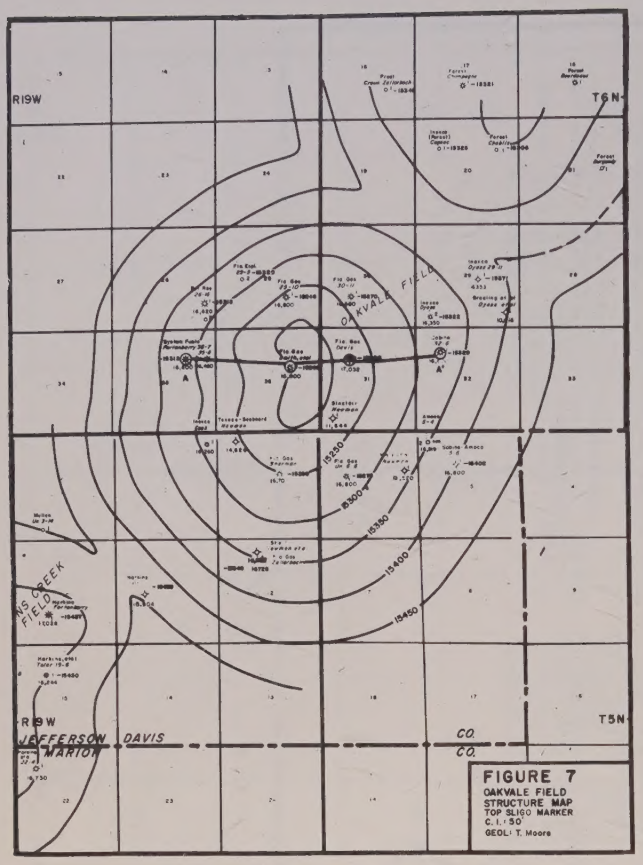


FIGURE 7
OAKVALE FIELD
STRUCTURE MAP
TOP SLIGO MARKER
C.I. = 50'
GEOL: T. Moore

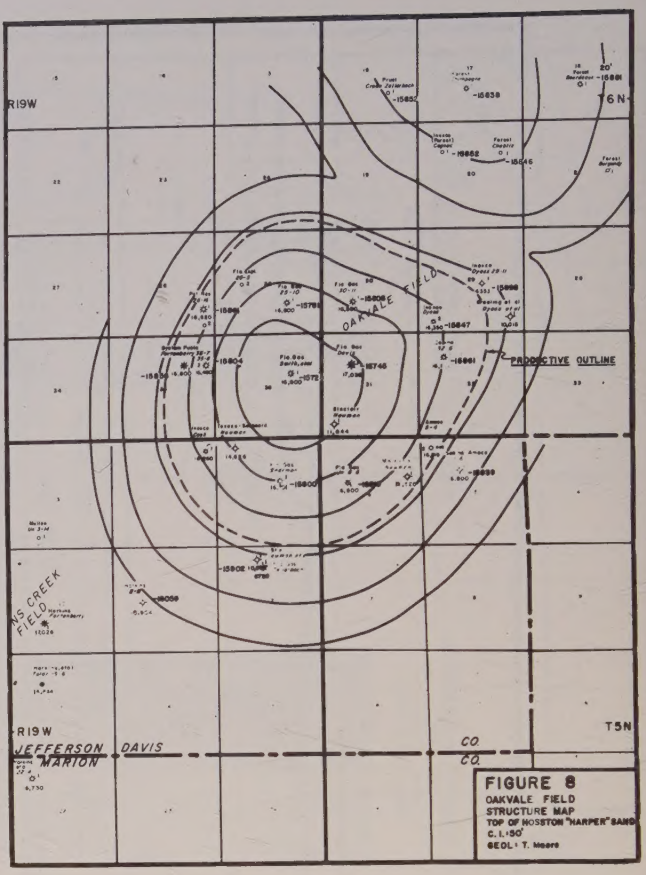


FIGURE 8
OAKVALE FIELD
STRUCTURE MAP
TOP OF HOSSTON "HARPER" SAND
C.I. = 50'
GEOL: T. Moore

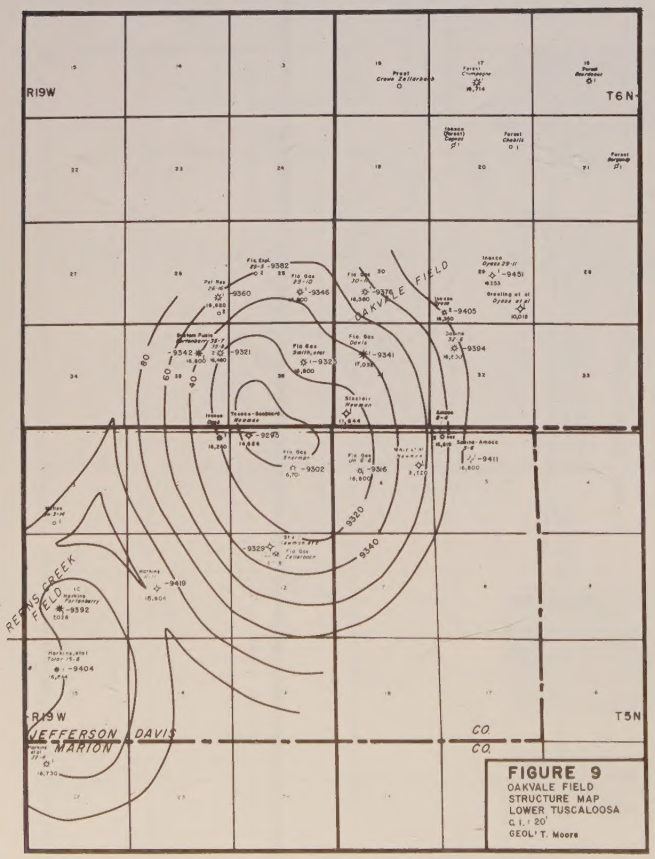


FIGURE 9
OAKVALE FIELD
STRUCTURE MAP
LOWER TUSCALOOSA
C.I. = 20'
GEOL: T. Moore

Stratigraphy

According to Reese (1977), both the Sligo and the Hosston were deposited in a deltaic environment. However, the Hosston has a much higher percentage of sand than the Sligo, evincing the relative rise in sea level near the end of the Hosston time.

Three distinct sands are recognizable in the Sligo, and are referred to as the "Marker," the "Second," and the "Third" Sligo sands. The "Marker" (or "First") sand is productive in the System Fuels, No. 1 Fortenberry Unit 35-7 well. The "Third" Sligo sand is productive in the Petroleum Resources, No. 1 Unit 30-11. No core data on the Sligo sands were available in the preparation of this paper.

The Sligo sands are not continuous as individual sand units across the field. Their geometry indicates deposition in a channel environment (see Figs. 2-4). Although the depositional pattern of each sand is somewhat different, each can be seen to thin to zero towards the crest of the structure.

The 'Harper" sand of the Hosston Formation is the primary producing zone at Oakvale Field. It varies in thickness from 20 to 50 feet within the field. Core information from four wells indicates an average porosity of 13.7% for the field and an average permeability of 101.5 millidarcies (see Table II).

TABLE I

OAKVALE FIELD
Hosston-Harper - Gas Pool

COMPANY AND LEASE	Well No.	Comp. Date	Annual Production - 1980			Cumulative Production to 1-1-81		
			Oil-Bbl.	Water-Bbl.	Gas-MCF	Oil-Bbl.	Water-Bbl.	Gas-MCF
Amoco Production Co.								
Unit 32-6	1	1-2-79	18540	9893	2475023	33046	21144	4058782
Florida Exploration Co.								
Davis et al	1	3-7-77	10531	6351	1423392	41106	15280	5201637
Shipley L. Sherman	1	6-1-78	12734	6119	1777791	33190	12637	4175467
Smith et al	1	8-2-77	13099	5643	1855743	42669	14190	5517180
Unit 6-6	1	11-27-77	12919	6830	1836706	42175	13978	5048532
Unit 25-10	1	8-5-78	13583	5034	1808360	32825	9668	4099876
Unit 30-11	1	10-2-78	11926	5276	1609086	25369	9527	3215608
System Fuels Inc.								
D. W. Fortenberry 35-8	2	9-23-80	0	0	0	0	0	0
Pool Totals for 1980			93332	45146	12786101	250380	96424	31317082

OAKVALE FIELD
Sligo Gas Pool

COMPANY AND LEASE	Well No.	Comp. Date	Annual Production - 1980			Cumulative Production to 1-1-81		
			Oil-Bbl.	Water-Bbl.	Gas-MCF	Oil-Bbl.	Water-Bbl.	Gas-MCF
System Fuels, Inc.								
Fortenberry 36-7	1	3-29-78	859	120	37788	3221	555	124555
Petroleum Resources								
Amoco Sabine 26-16	1	12-2-80	0	0	0	0	0	0
Field Totals for 1980			94191	45266	12823889	253601	96979	31441637

From:

Mississippi Oil & Gas Production
Annual 1980
(Mississippi Oil & Gas Board)

TABLE II

Average Porosity in the Hosston "Harper" Sand

	Fla. Gas #1 Smith+	Fla. Gas #1 Davis*	Fla. Gas Unit 6-6+*	Fla. Gas #1 Sherman+*	Mean	Median	Mode
Average (Mean) Porosity (%)	12.7	16.8	12.7	12.6	13.7	14.7	12.7
Average (Mean) Permeability (Mdarcies)	186.4	88.1	49.2	101.5	106	117.8	-

+ = Conventional Cores

* = Sidewall Cores

A sand isopach of the "Harper" (Fig. 5) reveals a sinuous bifurcating depositional pattern. In cross-section, the base of the deposit appears to be convex as viewed from below (see Fig. 6). This indicates the "Harper" to be a channel deposit (Levorsen, 1967).

Structure

The trapping structure is a simple anticline (see Figs. 7 & 8). Two structure maps, one of the top of the "Harper" sand and one of the top of a resistivity "marker" in the Sligo, were constructed for comparison. The crest and lateral extent of the anticline were found to be virtually the same for both horizons. In addition, a structure map of the shallower Lower Tuscaloosa Formation (Upper Cretaceous) shows the anticline to be present well above the producing intervals (see Fig. 9).

The presence of the anticline appears to be due to salt withdrawal, forming a classic "turtle" structure, such as the "sedimentary anticline" of Oxley and Herlihy (1972). This interpretation is substantiated by T. J. Bevan's gravity map of the area (see Fig. 10). The pronounced

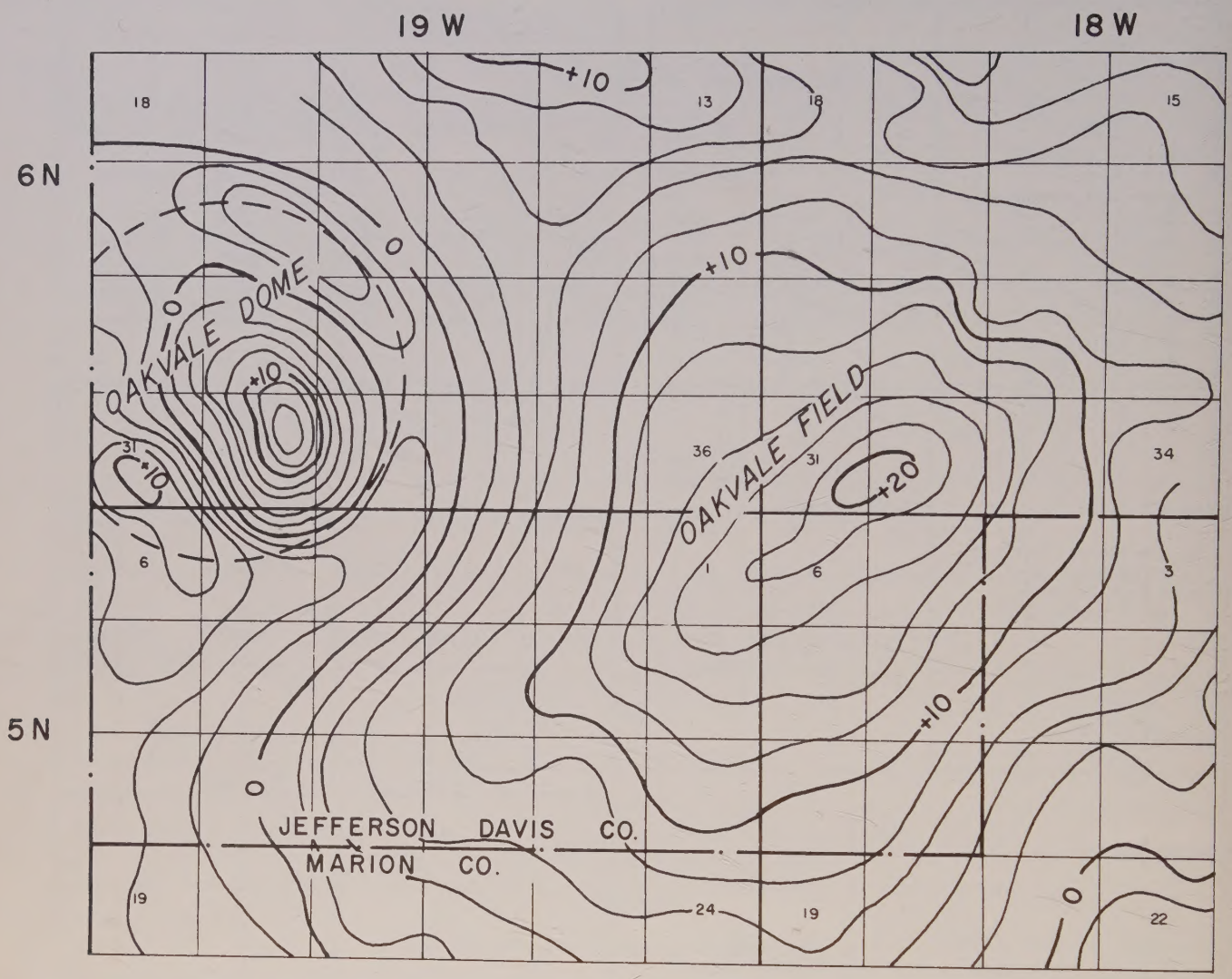


Figure 10

RESIDUAL GRAVITY MAP
by T. J. Bevan

gravity maximum signifies the absence or near-absence of salt. In conjunction with the proven structure, this clearly indicates a salt-withdrawal process with concomitant Upper Jurassic (Haynesville Formation?) thickening. Further withdrawal around the edges of the competent, dense sediments within this "depocenter' left the central portion as a positive structural feature, the effect of which is observed at least up to the Lower Tuscaloosa level (see Fig. 11).

Conclusions

Oakvale Field produces from a simple anticline, considered to be a "turtle" structure. This is indicated on a gravity map as a maximum anomaly. The concept of gravity maxima as potential exploration targets is well recognized, and Oakvale Field is an example of the validity of this approach.

Because of the sometimes vague nature of gravity

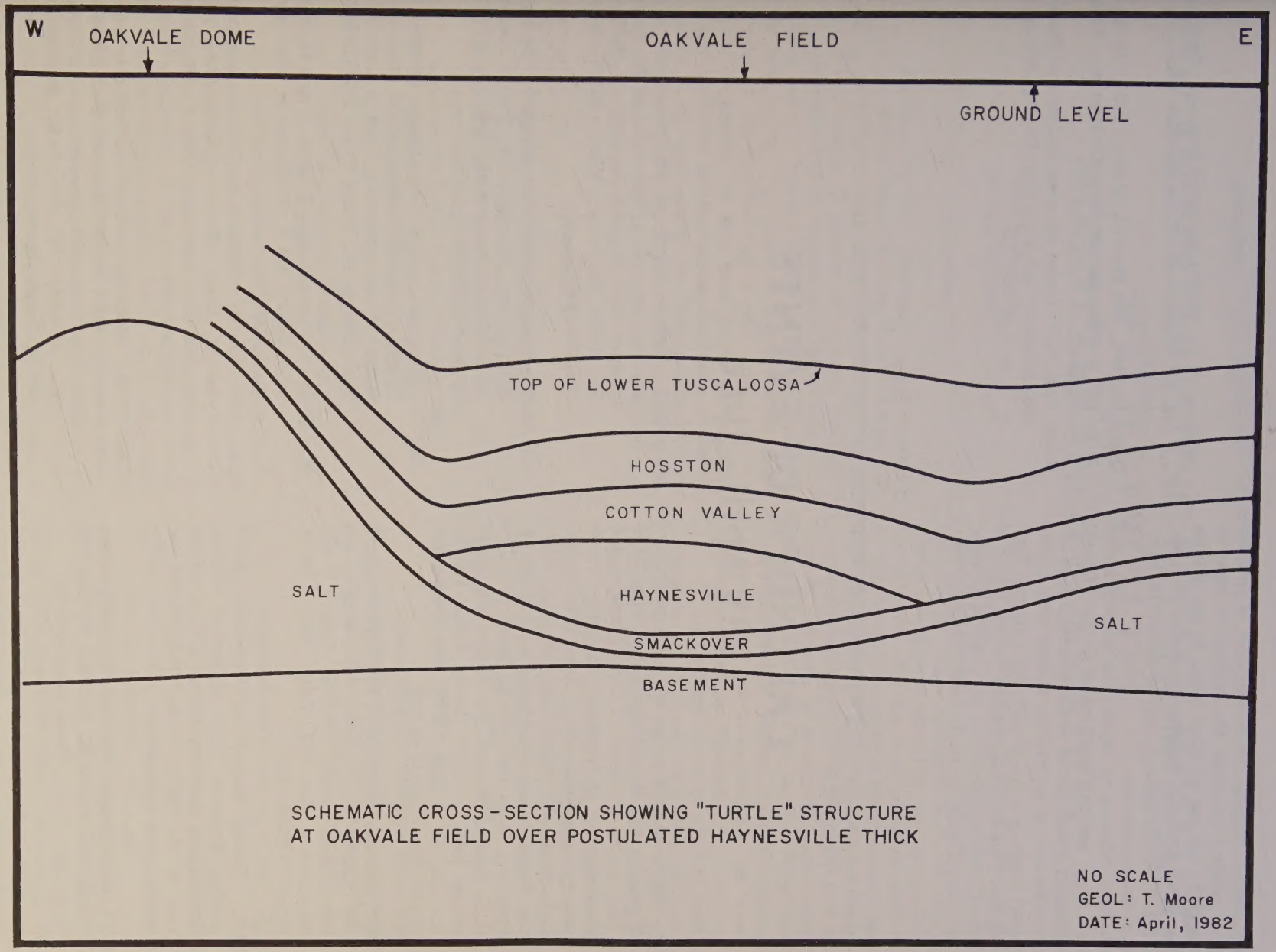

W
OAKVALE DOME
OAKVALE FIELD
E
GROUND LEVEL
TOP OF LOWER TUSCALOOSA
HOSSTON
COTTON VALLEY
SALT
HAYNESVILLE
SALT
SMACKOVER
BASEMENT
SCHEMATIC CROSS-SECTION SHOWING "TURTLE" STRUCTURE
AT OAKVALE FIELD OVER POSTULATED HAYNESVILLE THICK
NO SCALE
GEOL: T. Moore
DATE: April, 1982

Figure 11

data, and because maxima can be indicative of synclinal as well as anticlinal structure, the information must be substantiated by the use of other tools. In the absence of seismic data, structural mapping on shallow horizons, such as the Lower Tuscaloosa, can sometimes be representative of deeper structure.

Structural influence on depositional patterns can be seen in the Sligo, and to a lesser extent in the "Harper" sand. A prospect should not be condemned because of one dry hole on the crest of an anticline. Indeed, when dealing with channel sands, it is conceivable that only one flank of an anticline could be productive and the rest barren of hydrocarbons. Early recognition of environment of deposition can greatly economize development, once a discovery is made.

References

Levorsen, A. I., 1967, Geology of Petroleum (2nd ed.): W. H. Freeman and Company, San Francisco, p. 301-305.

Oxley, Marvin L., and Daniel E. Herlihy, 1972, The Bryan Field - a sedimentary anticline: Geophysics, v. 37, no. 1, p. 59-67.

Reese, Dale, 1977, Higher gas prices breathe new life into deep Mississippi Salt-Basin play: Oil and Gas Journal, v. 75, no. 9, p. 160-163.

CALENDER OF EVENTS
1983 April - June

April 8-9 - Gulf Coast Section, Society of Economic Paleontologists and Mineralogists, 1983 Spring Field Trip, Upper Cretaceous Lithostratigraphy and Biostratigraphy of Northeast Mississippi, Northwest Alabama, and Southwest Tennessee. Leaders: E. E. Russell, Mississippi State Univ.; E. A. Mancini, Geological Survey of Alabama; D. M. Keady, Mississippi State Univ.; C. E. Smith, U.S.G.S., U. S. National Museum. (For further information contact John L. "Chip" Carney, Amoco Production Co., P. O. Box 50879, New Orleans, La. 70150. Phone: 504/586-6769)

April 17-20 - American Association of Petroleum Geologists and Society of Economic Paleontologists and Mineralogists, annual meeting, Dallas. (AAPG headquarters, Box 979, Tulsa, Okla. 74101. Phone: 918/584-2555)

April 21-22 - Eastern Mineral Law Foundation, annual meeting, Knoxville, Tenn. (William G. Williams, West Virginia University, College of Law, Morgantown, W. Va. 26506. Phone: 304/293-2470) Fee: members free, nonmembers $250.

April 24-29 - Ancient clastics, field seminar, Lexington, Ky. (Teresa Zachary, AAPG headquarters, Box 979, Tulsa, Okla. 74101. Phone: 918/584-2555)

May 8-14 - Ancient carbonate rock sequences, field seminar, San Antonio. (Teresa Zachary, AAPG headquarters, Box 979, Tulsa, Okla. 74101. Phone: 918/584-2555)

May 9-13 - Remote sensing of the environment, symposium, Ann Arbor, Mich. (Robert H. Rogers, Environmental Research Institute of Michigan, Box 8618, Ann Arbor, Mich. 48107. Phone: 313/994-1200)

May 13-20 - Paleozoic stratigraphy and Appalachian Basin, field seminar, Arlington, Va. (Teresa Zachary, AAPG headquarters, Box 979, Tulsa, Okla. 74101. Phone: 918/584-2555)

May 14 - Extinction, symposium, Chicago. (Matthew H. Nitecki, Dept. of Geology, Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, Chicago, Ill. 60605. Phone: 312/922-9410)

May 24-28 - Salt, symposium, Toronto. (Frank O. Wood, Salt Institute, 206 N. Washington St., Alexandria, Va. 22314. Phone: 703/549-4648)

June 5-10 - Florida - Bahamas modern carbonates, field seminar, Miami. (Teresa Zachary, AAPG headquarters, Box 979, Tulsa, Okla. 74101. Phone: 918/584-2555)

June 13-18 - Modeling pollutant movement in ground water, short course, Madison, Wis. (Philip R. O'Leary, Dept. of Engineering, Univ. of Wisconsin - Extension, 432 N. Lake St., Madison, Wis. 53706. Phone: 608/262-0493)

June 25-July 3 - Georoots, field seminar, Edinburgh. (Teresa Zachary, AAPG headquarters, Box 979, Tulsa, Okla. 74101. Phone: 918/584-2555)

NEW AND INTERESTING EOCENE MOLLUSCAN SPECIES FROM THE MOODYS BRANCH FORMATION

John E. Robinson
Jackson, Mississippi

Introduction

Two new and one previously named molluscan species are here described from the Moodys Branch Formation at the Town Creek (MGS locality 1) and Riverside Park (MGS locality 2) localities in Jackson, Mississippi. The new species include the gastropod *Capulus (Hyalorisia) nettlesi* and the bivalve *Solemya (Acharax) dolinorum*. The latter is the first record of *Solemya* in the upper Eocene of the northern Gulf Coastal Plain, while the former is possibly the first fossil record of *Hyalorisia*, a very distinctive subgenus of *Capulus* having an internal septum. A rare gastropod species *Unitas pearlensis* (Meyer and Aldrich, 1886) is also described. Until now this species was only known from the holotype and was figured only by the drawing of Meyer (1886).

Systematics

Phylum MOLLUSCA Cuvier, 1797
Class GASTROPODA Cuvier, 1797
Subclass PROSOBRANCHIA Milne-Edwards, 1848
Order MESOGASTROPODA Thiele, 1925
Superfamily CREPIDULACEA Fleming, 1882
Family CAPULIDAE Ferrusac, 1821
Genus CAPULUS Montfort, 1810
Subgenus HYALORISIA Dall, 1889

Capulus (Hyalorisia) nettlesi n. sp.
Plate 1, figures 1a, 1b, 1c

The shell is cap-shaped with the apex close to the posterior margin and curved toward the base though not overhanging the margin. It is almost symmetrical about the anterior to posterior axis. The protoconch is partially embedded in the shell on the right side of the apex and is indistinct, possibly composed of two smooth whorls. A narrow but prominent septum is present in the interior along the posterior wall below the apical cavity. The muscle scar is long, narrow, U-shaped, lobate at the extremities, and centered about the posterior half of the shell with its central portion resting upon the septum. The exterior is sculptured with low, radiating ribs which are interrupted by irregular, concentric growth lines.

This species is similar to *Capulus (Hyalorisia) galeus* Dall, 1889, an extant species inhabiting the waters off Barbados and the Lesser Antilles and also the type species of *Hyalorisia*, in its low cap-shaped form and in possessing an internal septum. It differs in its larger size and in having an exterior radial sculpture. Also, the posterior slope below the internal septum in the type species is nearly vertical with the apex overhanging the shell margin. In *C. (H.) nettlesi*, the posterior margin is curved outward and extends beyond the apex. The large and regular aperture exhibited by the holotype of this species indicates a broad and flat substrate for attachment. Such a substrate could have been provided by the flat sides of the nautiloid shell *Aturia alabamensis* (Morton, 1834). This nautiloid species is common (at least as fragments) in the Moodys Branch Formation at Jackson, Mississippi.

C. (H.) nettlesi is perhaps the first fossil record of *Hyalorisia* and is known only from the holotype. It is named in honor of the late Clifton (Cliff) Nettles, past president and life member of the Mississippi Gem and Mineral Society.

Holotype: Paleontological Research Institute 30058; length 47.6 mm, width 35.1 mm, height 16.0 mm.

Type Locality: Moodys Branch Formation, on the north bank of Town Creek between South State St. and the I. C. G. Railroad bridge, in Jackson, Mississippi (MGS locality 1).

Order NEOGASTROPODA Wenz, 1938
Superfamily VOLUTACEA Rafinesque, 1815
Family CANCELLARIIDAE Forbes and Hanley, 1853
Genus UNITAS Palmer, 1947

Unitas pearlensis (Meyer and Aldrich, 1886)
Plate 1, figures 2a, 2b

1886. *Cancellaria pearlensis* Meyer and Aldrich, *in* Meyer, Senckenberg. naturf. Gesell., p. 7, pl. 1, fig. 4.
1893. *Uxia pearlensis* (Meyer and Aldrich). Cossmann, Ann. Geol. Paleont., v. 12, p. 42.
1947. *Unitas pearlensis* (Meyer and Aldrich). Palmer, Bull. Amer. Paleont., v. 30, no. 117, pt. 2, p. 414, pl. 63, fig. 4.
1966. *Unitas pearlensis* (Meyer and Aldrich). Palmer and Brann, Bull. Amer. Paleont., v. 48, no. 218, pt. 2, p. 1011.
1977. *Unitas pearlensis* (Meyer and Aldrich). Dockery, Miss. Geol. Survey Bull. 120, p. 87.

The shell is elongate, and consists of six and a half whorls. The nuclear whorls consist of two and a half smooth whorls. The sculpture begins between the second and third whorls, with no distinct line between the nuclear and postnuclear whorls. The early sculpture consists of longitudinal folds and four faint spiral ribs. With growth, the spiral ribs increase in size, but the longitudinal folds remain predominant and are nodose where intersected by the spiral ribs. There are five spiral ribs on the fourth and penultimate whorls, and approximately ten spiral ribs on the body whorl. On the lower half of the body whorl, there are faint, single, intermediate spiral ribs. The suture is deeply impressed, and the varices are large and distinct. The aperture is narrow, ovate, and slightly less than half the height of the shell. The columella lip is covered by a thick deposit of callus, and there are three columellar folds and one parietal fold. The labrum is varicose and has eight denticulations on the inner surface.

The figured specimen (MGS specimen 1100) is 10.0 mm in height, 4.7 mm in diameter, and was found at Riverside Park, Jackson, Mississippi (MGS locality 2). The holotype is in the Geology Department of Johns Hopkins University, Baltimore, Maryland.

Class BIVALVIA Linné, 1758
Subclass CRYPTODONTA Neumayr, 1884
Order SOLEMYOIDA Dall, 1889
Superfamily SOLEMYACEA H. and A. Adams, 1857
Family SOLEMYIDAE H. and A. Adams, 1857
Genus SOLEMYA Lamarck, 1818
Subgenus ACHARAX Dall, 1908

Solemya (Acharax) dolinorum n. sp.
Plate 1, figures 3a, 3b, 4a, 4b, 4c, 5a, 5b

The shell is elongate with the beak closer to the posterior end and with the anterior hinge subparallel to the ventral margin. Posterior to the beak is a well-defined nymph. The ligament is entirely external; no chondrophore, supporting buttress, or internal ridges are present. Below the beak is a round sub-umbonal depression, and there is a swelling of the posterior hinge below the nymph. The posterior muscle scar is prominent and moderate size, while the anterior scar is poorly defined and larger in size. On the exterior, a concave, strongly incised groove borders the nymph and truncates the posterior dorsal margin. The exterior is sculptured by fine, paired, radial lines and concentric growth lines. A web-like pattern is formed on the posterior where the concentric lines are concave outward between the radial pairs. The shell gapes slightly at the anterior margin, but no gape is indicated at the more strongly rounded posterior margin.

H. E. Vokes (1955) and Palmer and Brann (1965) report only two species of *Solemya* from the Eocene of the Gulf Coastal Plain. One species, *S. alabamensis* Harris, 1897, from the Bashi Formation (lower Eocene) in Alabama, is known only from the figured holotype, which is an internal mold of the left valve. Though the holotype has since been lost, Harris' figure gives no indication of an impression of a chondrophore or internal ridge, and the species probably belongs to the subgenus *Acharax*. The figure of Harris resembles *S. (A.) dolinorum* though it does not show a well-developed nymph, and Harris' specimen is smaller in size being only 26 mm in length and 8 mm in height (H. E. Vokes, 1955). Harris (1919) collected a second, larger specimen of *Solemya* from the McBean Formation (middle Eocene) in South Carolina, which he also identified as *S. alabamensis*. This latter specimen, an internal mold of the left valve, shows the impressions of a chondrophore and internal ridge and thus does not

EXPLANATION PLATE 1

Figure

1 *Capulus (Hyalorisia) nettlesi* n. sp.
Holotype 30058 Paleontological Research Institute (x1.25). Length 47.6 mm, width 35.1 mm, height 16.0 mm; Moodys Branch Formation, Town Creek in Jackson, Mississippi (MGS locality 1).

2 *Unitas pearlensis* (Meyer and Aldrich, 1886)
Figured specimen 1100 Mississippi Bureau of Geology (x6). Height 10.0 mm, width 4.7 mm; Moodys Branch Formation, Riverside Park in Jackson, Mississippi (MGS locality 2).

3-5 *Solemya (Acharax) dolinorum* n. sp.
3. Holotype 30059 Paleontological Research Institute (x1.6). Left valve; length 51.2 mm, height 19.3 mm, inflation 6.0 mm; Moodys Branch Formation, Town Creek in Jackson, Mississippi (MGS locality 1).
4. Figured specimen 1102 Mississippi Bureau of Geology (x1.8). Both valves; length 40.3 mm, height 12.9 mm, inflation of both valves 8.5 mm; Moodys Branch Formation, Town Creek in Jackson, Mississippi (MGS locality 1).
5. Figured specimen 1101 Mississippi Bureau of Geology (x1.6). Right valve (partially compacted); length 49.1 mm, height 18.7 mm, inflation 5.7 mm; Moodys Branch Formation, Town Creek in Jackson, Mississippi (MGS locality 1).

1a

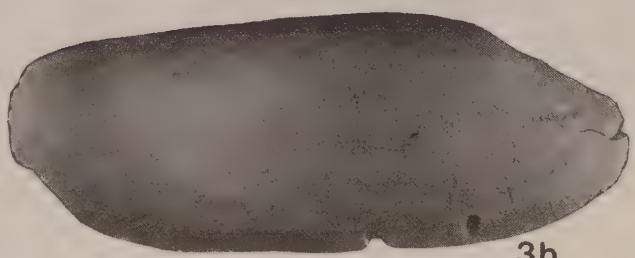
1b

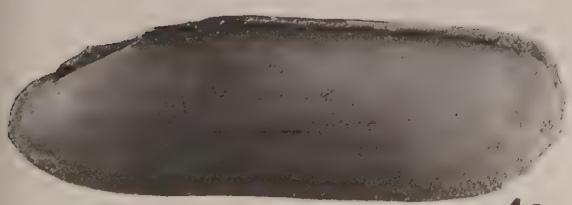
1c

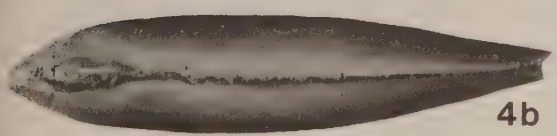
2a

2b

3a


3b


4a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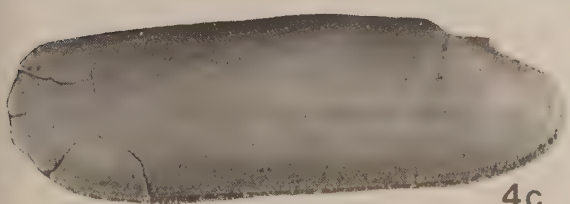
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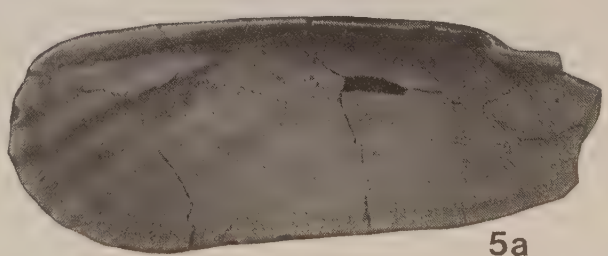
5a

5b

belong in the subgenus *Acharax*. Palmer and Brann (1965) identify this specimen as *Solemya* sp.

The lower Miocene species *Solemya (Acharax) dalli* (Clark, 1925) from the uppermost Twin River Formation (see Addicott, 1976a for illustrations) and the lowermost Clallam Formation (Addicott, 1976b) is similar to *S. (A.) dolinorum* with the exception that its anterior end is more greatly expanded in height. This expansion, however, may be due to partial compaction of the specimens. Illustrated specimens of *S. (A.) dalli* are in a hard matrix, and the interior shell structure is not well known.

S. (A.) dolinorum is named in honor of the collectors of the holotype Luc Dolin and Cyrille Dolin, Laboratoire de Geologie de Bassins Sedimentaires, Universite de Paris VI, Paris, France.

Holotype: Paleontological Research Institute 30059; left valve, length 51.2 mm, height 19.3 mm, inflation 6.0 mm. Figured specimen MGS 1101; right valve (partially compacted), length 49.1 mm, height 18.7 mm, inflation 5.7 mm. Figured specimen MGS 1102; both valves, length 40.3 mm, height 12.9 mm, inflation of both valves 8.5 mm.

Type Locality: Moodys Branch Formation, on the north bank of Town Creek between South State St. and the I. C. G. Railroad bridge, in Jackson, Mississippi (MGS locality 1).

Acknowledgments

I would like to thank David T. Dockery III of the Mississippi Bureau of Geology for the photography and his valuable assistance in the research and preparation of this article, and Dr. Harold E. Vokes of Tulane University for examining the specimens of *Solemya* and determining the subgenus.

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"All I wanted was to be a paleontologist."

Morgan Fairchild

SENATE CONCURRENT RESOLUTION NO. 601

Chapter No. 653

A CONCURRENT RESOLUTION TO DESIGNATE PETRIFIED WOOD AS THE OFFICIAL STONE OF THE STATE OF MISSISSIPPI.

WHEREAS, petrified wood can be found all over the State of Mississippi, and

WHEREAS, it is a beautiful rock which has been transfigured into a stony replica of its organic mold by structural impregnation with dissolved minerals; and

WHEREAS, the Mississippi Petrified Forest is recognized across the nation as one of the most significant deposits of this natural phenomenon and has been designated a Registered National Landmark:

NOW, THEREFORE, BE IT RESOLVED BY THE SENATE OF THE STATE OF MISSISSIPPI, THE HOUSE OF REPRESENTATIVES CONCURRING THEREIN, That petrified wood is hereby designated as the official stone of the State of Mississippi.

ADOPTED BY THE SENATE
April 12, 1976

/s/ Evelyn Gandy
PRESIDENT OF THE SENATE

ADOPTED BY THE HOUSE OF REPRESENTATIVES
April 14, 1976

/s/ C. B. Newman
SPEAKER OF THE HOUSE OF REPRESENTATIVES

SENATE CONCURRENT RESOLUTION NO. 557

Chapter No. 586

A CONCURRENT RESOLUTION TO DESIGNATE THE PREHISTORIC WHALE AS THE OFFICIAL FOSSIL OF THE STATE OF MISSISSIPPI.

WHEREAS, in the summer of 1971, along the banks of Thompson Creek in Yazoo County, Mississippi, a fossil whale skeleton, the remains of a whale which lived in the warm waters of the Gulf that covered that portion of Mississippi some sixty million years ago, was found by members of the Mississippi Gem and Mineral Society; and

WHEREAS, the fossil sections are the most complete of this type whale in the entire world; and

WHEREAS, five fossil remains of prehistoric whales have been found in various counties throughout the state, and probably more await excavation; and

WHEREAS, the Mississippi Museum of Natural Science expends considerable effort in the preservation of our natural history and in the education of our citizenry in this area; and

WHEREAS, Mississippi's natural heritage should be preserved for the benefit of this and future generations:

NOW, THEREFORE, BE IT RESOLVED BY THE SENATE OF THE STATE OF MISSISSIPPI, THE HOUSE OF REPRESENTATIVES CONCURRING THEREIN, That the prehistoric whale is hereby designated as the official fossil of the State of Mississippi.

ADOPTED BY THE SENATE
March 12, 1981

/s/ Brad Dye
PRESIDENT OF THE SENATE

ADOPTED BY THE HOUSE OF REPRESENTATIVES
March 26, 1981

/s/ C. B. Newman
SPEAKER OF THE HOUSE OF REPRESENTATIVES

NECROLOGY

Katherine Evangeline Hilton Van Winkle Palmer
(February 4, 1895 - September 12, 1982)

Katherine Van Winkle Palmer, of 206 Oak Hill Road, Ithaca, New York, died at home on Sunday, September 12, 1982. She was the widow of Ephraim Laurence Palmer.

Mrs. Palmer was a Founding and Charter Member, Life Trustee, former Director (1951-1978), and Director Emeritus of the Paleontological Research Institution of Ithaca. A specialist in fossil mollusks, she had authored over seventy articles and books on the subject from 1918 until her death, and had recently completed a definitive history of the first fifty years of the Paleontological Research Institution.

Born February 4, 1895, in Oakville, Washington, she was the daughter of Jacob and Edith (Hilton) Van Winkle. She received her Bachelor of Science degree from the University of Washington in 1918, and her doctorate from Cornell University in 1925. She was a member of numerous professional and honorary societies, including the American Association for Advancement of Science, the American Association of Petroleum Geologists, the American Malacological Union (President: 1959-1960), the Cushman Foundation for Foraminiferal Research (Secretary-Treasurer: 1954-1961), the Geological Society of America, the Geological Society of France, the Malacological Society of London, the Paleontological Society, who awarded her the Paleontological Society Medal in 1972, in recognition of her research on fossil mollusks, the Societe Linneene de Lyons, the Society of Economic Paleontologists and Mineralogists, and Alpha Delta Pi, Chi Upsilon, Phi Kappa Phi, Sigma Delta Epsilon (Charter Member, National President: 1938), and Sigma Xi.

Dr. Palmer, along with Gilbert D. Harris, directed much of the Paleontological Research Institution's efforts in its early years toward the study of Paleogene Mollusca of the Gulf Coastal Plain. Three of the most important of these works including Mississippi mollusks are:

Harris, Gilbert D., and Katherine E. H. V. W. Palmer, 1946-1947, The Mollusca of the Jackson Eocene of the Mississippi Embayment . . . : Bull. Amer. Paleont., v. 30, no. 117, 564 p., 65 pl.

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Palmer, Katherine E. H. V. W., and Doris C. Brann, 1965-1966, Catalogue of the Paleocene and Eocene Mollusca of the southern and eastern United States: Bull. Amer. Paleont., v. 48, no. 218, 1057 p., 5 pl.

She is survived by a son, Richard Robin Palmer, of New York City.

Charles Rudolph Kolb
(April 14, 1920 - November 26, 1982)

Dr. Charles R. Kolb, 62, died November 26, 1982, at the Mercy Regional Medical Center, Vicksburg, after a brief illness.

Dr. Kolb was former chief geologist for the Waterways Experiment Station where he retired in 1973. Since then he had engaged in private consulting work, and was a consulting professor in geology at Louisiana State University.

A native of Vicksburg, Kolb attended Louisiana State University, Purdue University, and George Washington University. He had a Ph.D. degree in geology from LSU, and had far-flung interests in geology in this country and abroad. He had been a geologist at Waterways Experiment Station since 1950, and was chief geologist from 1965 until his retirement. He had authored approximately 50 technical papers and several reports for professional books and journals.

F. Stearns MacNeil
(November 27, 1909 - January 24, 1983)

F. Stearns MacNeil, 73, died January 24, 1983, in Ft. Myers, Florida. After a nine day stay in the hospital, MacNeil lost his four-year battle with lymphoma.

MacNeil had 37 years of service with the U. S. Geological Survey, during which time he worked on a diversity of projects, from the geology of the Marshall Islands to the geologic mapping of the Oligocene in Mississippi and Alabama. MacNeil's work with the Survey began as a geologic aide from 1928-1937. As a geologic aide, he worked part-time at the National Museum under W. C. Mansfield and R. W. Brown, while attending school at George Washington University. He earned his degree in 1935 with a major in geology and minor in biology. In 1937, he was appointed a junior geologist with the U. S. Geological Survey. He was stationed in Washington, D. C., though his work included geologic mapping, mineral resource studies, and paleontology in the southeastern United States and in Okinawa. MacNeil was stationed in Denver, Colorado, from 1951 to 1957, during which time he led a field party to study the geology of the Marshall Islands. In 1957, he was transferred to Menlo Park, California, where he devoted his time to research and writing about Tertiary mollusks from a number of diverse regions, including the Vicksburg gastropods of Mississippi. While in California, MacNeil was elected as a fellow of the California Academy of Science.

MacNeil retired from the U. S. Geological Survey in 1965. Shortly afterwards he moved to Ft. Myers, Florida, where he lived with his wife Edna R. Swyers MacNeil and son Raymond S. MacNeil until his death. He also leaves behind a daughter, Mrs. Gail Bellas.

NEW BUREAU OF GEOLOGY PUBLICATION:

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The Bureau of Geology announces the publication of Information Series 82-2, "Mineral Producers Directory, 1982," by Catherine F. Sims. The publication is 19 pages in length and contains 3 illustrations.

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Information Series 82-2 may be purchased from the Bureau of Geology at 2525 North West Street for $1.00 per copy. Mail orders will be accepted when accompanied by payment ($1.00, plus $.85 postage and handling). Address mail orders to:

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PETROLEUM NEWS

MISSISSIPPI OIL AND GAS STATISTICS, THIRD QUARTER 1982

Oil

	Bbls. Produced	Severance Tax	Average Price Per Bbl.
July	2,892,420	$ 4,976,916.16	$ 28.68
August	2,931,381	5,038,942.18	28.65
September	2,628,213	4,583,183.30	29.06
Totals	8,452,014	$ 14,599,041.64	$ 28.79

Gas

	MCF Produced	Severance Tax	Average Price Per MCF
July	13,936,588	$ 3,471,537.75	$ 4.15
August	18,897,831	4,656,520.36	4.11
September	19,999,214	3,904,864.05	3.25
Totals	52,833,633	$ 12,032,922.16	$ 3.84

source: State Tax Commission

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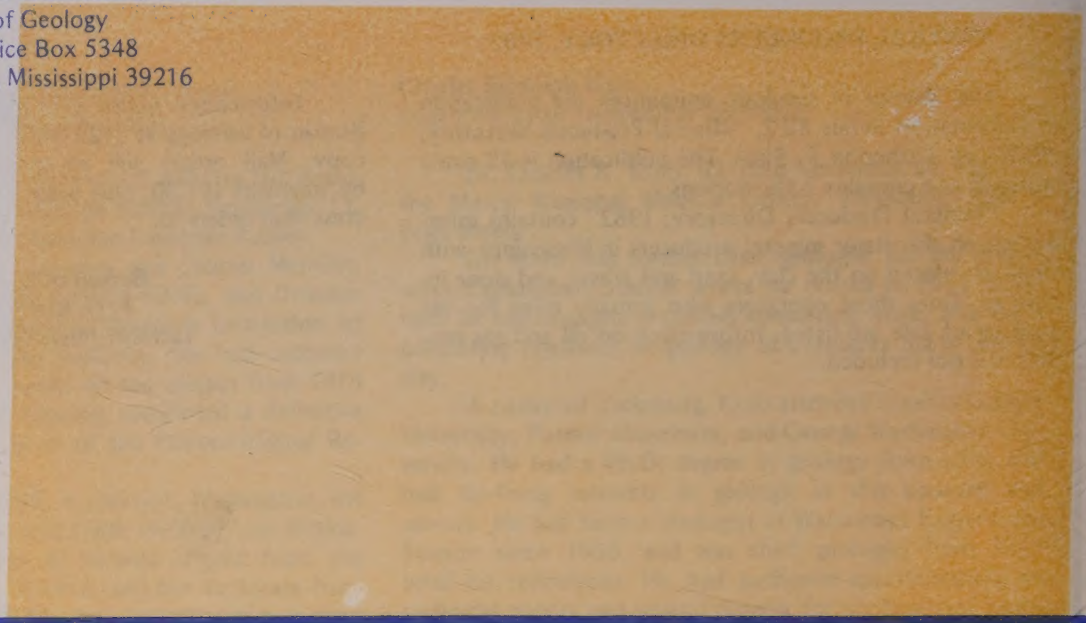

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